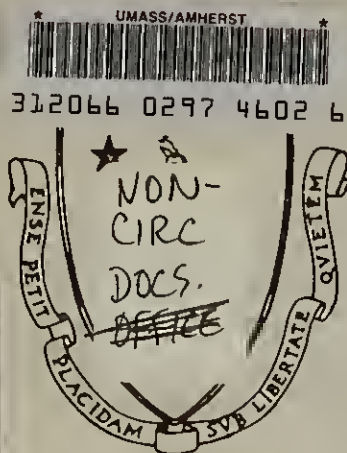


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RELOCATION INSTRUCTIONS

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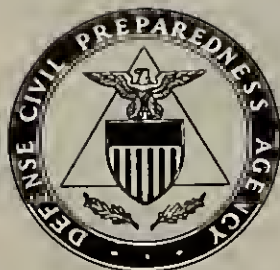
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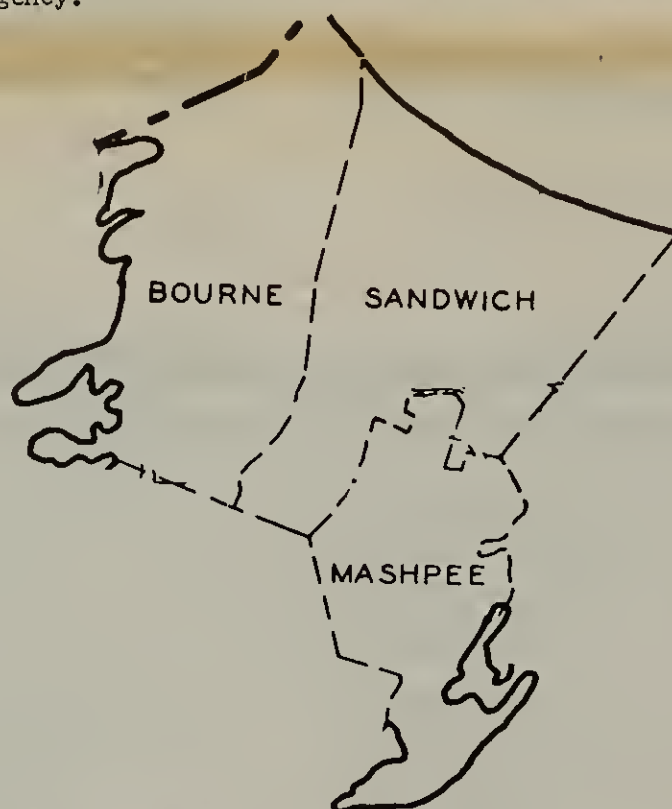


MASHPEE RISK AREA

INCLUDING

B O U R N E M A S H P E E S A N D W I C H

These official instructions were prepared by the Massachusetts Civil Defense Agency in cooperation with the United State Defense Civil Preparedness Agency.



THIS AREA MAY BE RELOCATED

IF A NUCLEAR ATTACK OCCURS, THE AREA SHOWN ABOVE WOULD BE SUBJECT TO THE GREATEST DANGER. ALL PERSONS LIVING IN THIS RISK AREA MUST EVACUATE, WHEN ORDERED, TO PROVINCETOWN, DESIGNATED A "HOST AREA". YOU MUST EVACUATE, WHEN ORDERED, FOLLOW ALL INSTRUCTIONS FOR YOUR TOWN ON PAGE 3, AND OTHER GENERAL INSTRUCTIONS IN THIS BOOKLET.

(RESIDENTS OF PROVINCETOWN (HOST COMMUNITY) SEE GUIDANCE ON PAGE 6

**This Information is your key to survival,
Read It..... Keep It**

IF THE SITUATION WORSENS

If the present crisis becomes more serious, evacuation of the Risk Area may be ordered. All persons living in the Risk Area will be instructed to move to a safer location called "Host Area". Plans have been made to shelter, feed and protect the evacuees.

Those living in this Risk Area who do not leave according to instructions will be subject to strictly-enforced curfews. Movement within the Risk Area will be severely restricted to protect the property of those who have evacuated. In addition, most facilities or services cannot be provided in the Risk Area during the evacuation period. In general, food and retail outlets will be closed. Available food and goods will be used to supply the evacuated population in the Reception Areas.

PREPARE NOW

Here are some things you can do right now that will better prepare you and your family to survive and recover if a nuclear attack should occur.

- Check to see if you live in the Risk Area: look at map on page 1.
- Go over the checklist below of things to take with you. If you will need prescription medicine or special food, check to see if you have an ample supply.
- Check your route assignment on page 3 and route map on page 4.
- Check your home for security. See that all locks are secure. Store valuables in a safe place. Close all window shades, blinds and drapes.
- If you will use your car, be sure you have enough gas to get you to the Host Area.
- **STAY TUNED TO YOUR LOCAL TV OR RADIO STATIONS FOR INSTRUCTIONS. THEY WILL BROADCAST THE NOTICE TO EVACUATE, IF DIRECTED BY GOVERNMENT OFFICIALS.**
- Read this supplement carefully and discuss it with your family.

IF EVACUATION IS ORDERED

When official notice to evacuate is given, pack your family car with the items listed below and follow the route instructions for your area on page 3.

You will have plenty of time - several days is allowed for movement - but leave when the order is given so you will have plenty of time to get settled in the Host Area and assist the people there.

ON THE WAY

- **KNOW YOUR DESTINATION** (Reception Center) See page 3.
- Keep your windshield marker (page 11 & 12) in view.
- Follow the directions of police and sheriffs.
- Keep your radio on for more information.

WHEN YOU ARRIVE IN THE HOST AREA

When you arrive at the reception area stay in your car until reception personnel either ask you to come into the center or direct you to a hosting facility where you will sleep, eat, etc. You may be asked to help personnel in the Host Area.

KEY WORKERS - SPECIAL GROUPS

Certain key workers and their families (doctors, police, etc.) and other special groups will relocate to pre-designated facilities. If you are a key worker, follow the instructions you receive at work and use this booklet for general information. Key workers will be housed at the Cape Cod Community College in Hyannis.

IF YOU HAVE A VACATION CABIN, RELATIVES, FRIENDS...

As the crisis intensifies and evacuation appears imminent, if you have a vacation cabin or friends or relatives outside the Risk Area but within a reasonable distance, go there as soon as possible. As evacuation gets underway, it may be difficult or impossible to get to the location of your choice.

THINGS TO TAKE WITH YOU

CLOTHING AND BEDDING

- ☐ ★ work gloves
- ☐ ★ work clothes
- ☐ ★ extra underclothing
- ☐ ★ outerwear (depending on season)
- ☐ ★ rain garment
- ☐ ★ extra pair of shoes
- ☐ ★ extra socks or stockings*
- ☐ sleeping bags and/or
- ☐ blankets and sheets

FOOD AND UTENSILS

- ☐ Take all the food you can carry (particularly canned or dried food requiring little preparation)
- ☐ water
- ☐ thermos jug or plastic bottles
- ☐ bottle and can opener
- ☐ eating utensils
- ☐ plastic or paper plates, cups, and napkins
- ☐ pan
- ☐ plastic and paper bags
- ☐ ★ candles and matches
- ☐ plastic drop cloth

PERSONAL, SAFETY, SANITATION, AND MEDICAL SUPPLIES

- ☐ ★ battery operated (transistor) radios, extra batteries
- ☐ ★ flashlight, extra batteries
- ☐ ★ soap
- ☐ ★ toothbrush & toothpaste
- ☐ ★ shaving articles
- ☐ ★ sanitary napkins
- ☐ ★ detergent
- ☐ ★ towels and washcloths
- ☐ toilet paper
- ☐ emergency toilet
- ☐ garbage can
- ☐ newspapers
- ☐ first aid kit
- ☐ ★ special medication (insulin, heart tablets, or other)

BABY SUPPLIES

- ☐ ★ diapers
- ☐ ★ bottles and nipples
- ☐ ★ milk or formula
- ☐ ★ powder
- ☐ ★ rubber sheeting, etc.

TOOLS FOR CONSTRUCTING A FALLOUT SHELTER

- ☐ pick ax
- ☐ shovel
- ☐ saw
- ☐ hammer
- ☐ ax
- ☐ crowbar
- ☐ nails and screws
- ☐ screwdriver
- ☐ wrench

IMPORTANT PAPERS

- ☐ ★ Social Security card
- ☐ ★ deeds
- ☐ ★ Insurance policies
- ☐ ★ stocks and bonds
- ☐ ★ will
- ☐ ★ savings account books
- ☐ ★ credit cards, checks and currency
- ☐ ★ This Booklet and all other Civil Defense instructions you have

DO NOT TAKE

- ☐ FIREARMS—(Guns of any kind)
- ☐ NARCOTICS
- ☐ ALCOHOLIC BEVERAGES

★ Items to take if you use Public Transportation

EVACUATION ROUTE TABLE

RISK AREA	MAIN ROUTES	RECEPTION TOWN	RECEPTION CENTER
Bourne	US 6	Provincetown	Post Office Commercial Street
Mashpee	US 6	Provincetown	Provincetown High School Winslow Street
Sandwich	US 6A and 6	Provincetown	Provincetown High School Winslow Street



IF YOU NEED
TRANSPORTATION

If you do not have a car or truck and cannot go with a friend or neighbor, then report to the nearest public school in the Risk Area during daylight hours. You will be taken by bus to a safe place in the Host Area.

If you are disabled or cannot get to the nearest Risk Area public school by yourself, call your local Civil Defense Office.

FOR FURTHER
INFORMATION
CONTACT:
Information Center

- Bourne C.D. Office - 759-4084
- Mashpee C.D. Office - 477-1213
- Sandwich C.D. Office - 383-0136

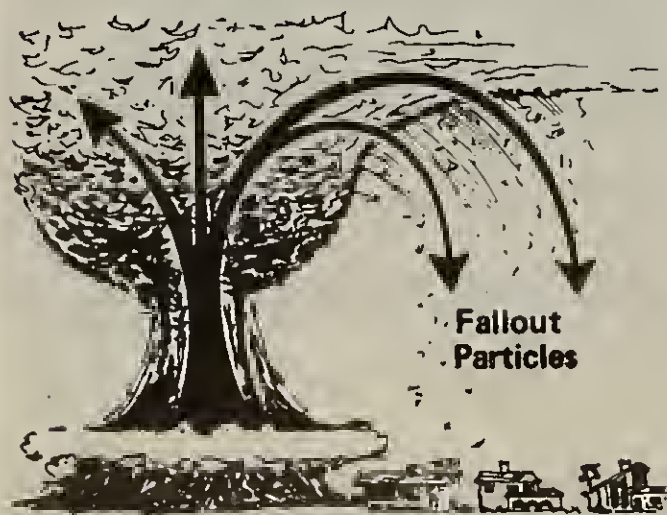
FACTS ABOUT A NUCLEAR EXPLOSION

If you are in an unprotected area near where a nuclear weapon explodes, you could not survive the effects of the blast and heat generated by the explosion. After the explosion, the major danger is from radiation sickness caused by radioactive fallout. This fallout can endanger the life and health of people

WHAT CAUSES FALLOUT....

When a nuclear weapon explodes, great quantities of earth and other debris are sucked up into a nuclear cloud. The bits and particles of earth are mixed with the radioactive materials produced by the explosion and become "radioactive."

Within a short time, these fallout particles drift back to earth. Carried by the wind, they can spread over a large area far from the explosion site.



The particles may look like fine grains of salt or sand, but the gamma rays they give off cannot be seen. (Special Instruments are required to detect the rays and measure their intensity.) The particles can be swept, brushed, or washed off.

WHY FALLOUT IS DANGEROUS

The gamma rays given off by radioactive fallout particles can cause physical and chemical changes in the cells of the body causing radiation sickness. No special clothing can protect you from the rays and there is no known drug or chemical that can prevent radiation from damaging the cells of the body. Large doses of radiation will cause death. But if you receive small or medium doses, the body will repair itself and you will get well.

The amount of gamma radiation that you can tolerate depends on a number of factors. The effects of radiation are more severe in very young or very old persons, and those not in good health. Also, a single large dose received in a short period of time is more damaging than the same dose received over a longer period.

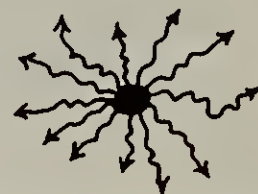
People exposed to radiation DO NOT BECOME RADIOACTIVE and consequently, are not dangerous to other people. Radiation sickness is NOT contagious and one person cannot infect another.

outside the risk area. However, protective measures can be taken to safeguard you and your family from the effects of nuclear fallout.

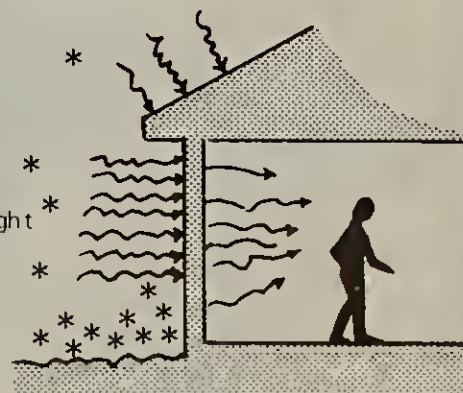
This section describes what fallout is and how to protect yourself against its effects.

The gamma rays, however, are invisible and can pass through light materials. A considerable thickness of heavy material is required to stop the penetration of these rays.

Single particle emitting gamma rays



Gamma radiation can penetrate light materials. It loses some of its strength, however, when it passes through.



The thicker and heavier the material the more gamma rays are blocked out, therefore fewer pass through to cause injury



The important points to remember about the danger of fallout are:

- You cannot see the gamma rays given off by fallout particles.
- Gamma radiation can penetrate light materials, therefore, heavy clothing alone will not protect you from these rays. If, during the first day or so, the fallout particles should get on your skin, they should be brushed off to avert skin burns.
- Radiation is more dangerous to very young, very old or sick people than those in good health.
- A large dose of radiation received in a short period is more damaging than smaller doses received over a longer period.
- Radiation sickness is not contagious and cannot be passed from one person to another.

HOW TO PROVIDE FALLOUT SHELTER FOR YOU AND YOUR FAMILY

Many larger buildings have been designated as public shelters. They are marked by signs like this:



However, most public shelters are in larger cities and will be needed for key workers or those who cannot be relocated. The smaller counties that will serve as reception areas usually do not have enough shelters for their own residents. Consequently, it will be necessary for many residents of the reception counties—AND FOR MOST CITY EVACUEES—to improvise their own fallout protection.

Both the residents of the reception counties and city evacuees will have to work hard, for a day or more, to construct improvised shelters to protect against fallout.

Designs for simple shelters are shown on Pages 8, 9, 10



HOW TO PROTECT AGAINST FALLOUT

As described above radiation loses its strength:

- With the passage of time
- As it passes through materials
- As the distance from the particles is increased

The best protection is to surround yourself with heavy materials. A fallout shelter will give you this kind of protection.

A fallout shelter does not need to be a special type of building. Any building will provide protection if the walls and roof are thick or heavy enough to absorb many of the rays given off by the particles outside. Even caves and mines can provide protection.

The key fact to remember is the farther you are from radioactive fallout particles and the more material you have between you and the particles, the safer you are from radiation. For example, you have more protection in a basement or inner corridor than on the top floor of a building or near an outside wall.

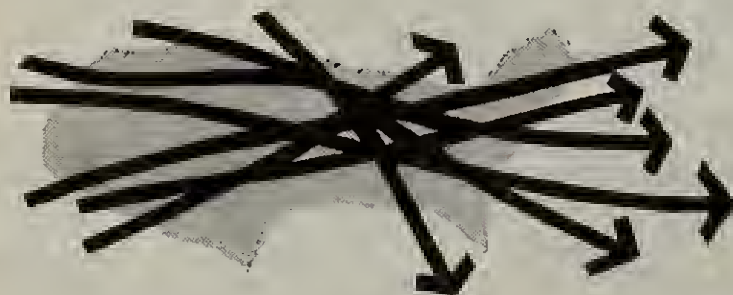
WHO WILL NEED PROTECTION FROM FALLOUT

There is no way of predicting in advance where or how soon fallout will settle to the ground. This depends on the weather and on the direction and speed of the winds.

Areas close to a nuclear explosion might receive fallout within 20 or 30 minutes. Depending on the winds, it may take 5 to 10 hours for particles to drift down on communities 100 miles or more away from the explosion.

The heavier particles giving off the most intense radiation will fall first. The lighter particles falling later will have lost much of their radiation high in the atmosphere. The first 24 hours after fallout begins to settle are the most dangerous. Once on earth, the radiation from the particles loses its strength over time. The longer you are in a shelter the lower the outside radiation levels will be when you emerge.

After a nuclear attack, dangerous levels of fallout COULD occur any place in the United States. Everyone, therefore, must have protection in case fallout occurs in his community.



HOW TO... IMPROVISE FALLOUT SHELTERS (Select the best one for you)

There are two basic types of improvised shelters: (1) Those you improvise inside a house or other structure and, (2) those you construct outside, either above or below the ground. In either of these types of shelter the key is to GET AS MUCH HEAVY MATERIAL AND DISTANCE BETWEEN YOU AND THE FALLOUT AS YOU CAN. Heavy material will help shield you from the fallout radiation.

Shielding materials such as bricks, dirt, sand, concrete blocks, and concrete are best to use. Baled hay, sacked grain, and drawers or cartons filled with sand or earth can also be used as shielding material.

If you have been invited into a local resident's home, you should work with the residents to improvise fallout protection. If you are housed in a public building, you should cooperate with the other evacuees in providing shelter for those in your building.

The first 24 hours after fallout begins to settle is the most dangerous period. After the first few hours of the fallout period, it may be permissible to leave the shelter for short periods of time to get supplies, go to the bathroom, etc. However, until you are advised what the radiation danger is, you should AVOID EXPOSURE outside the shelter.

IF YOU LIVE IN THE HOST AREA:

This is the most serious crisis our country has ever faced. As a resident of the Host Area you can help save the lives of your neighbors from Bourne, Mahepee, and Sandwich who have left their homes to seek safety here.

WILL YOU SHARE WITH ANOTHER FAMILY?

Your neighbors who have evacuated their homes need your help, particularly those families with little children. Volunteer now to bring a family to live with you and help improve your fallout protection. You may be saving their lives. They will either bring food with them or help you buy enough. Call the number listed for your town now!

IF YOU HAVE NO BASEMENT: Follow the instructions for expedient shelter on page 8, or as a last resort, seek fallout protection, if necessary, at the nearest public shelter.

IF YOU WORK IN THE HOST AREA: If you work in a needed industry in the Host Area (food, health service or others as designated) report to work as usual - you will be needed.

FOLLOW ALL OFFICIAL INSTRUCTIONS FOR HOST AREA RESIDENTS - KEEP YOUR RADIO AND TV ON.



HOST AREA

CALL NOW TO SHARE YOUR BASEMENT

Civil Defense Office - 487-9016

HOST AREA RESIDENTS ONLY

If you plan to use your own home for shelter-Study the following on how to improve your HOME SHELTER

If you take shelter in the best protected part of your home, you can add additional protection. Although this might be possible at the time you receive warning to take shelter, a certain amount of preplanning is necessary if satisfactory results are to be expected. **NOW IS THE TIME TO DECIDE WHAT YOU WILL DO AND HOW YOU WILL DO IT.**

If your home has a basement, pick out the corner of your basement where the ground level outside is highest. This is the safest place in the basement.

If your home does NOT have a basement, some protection can be obtained in the central part of the house, at ground level farthest away from the roof and walls.

TO MAKE THESE AREAS SAFER:

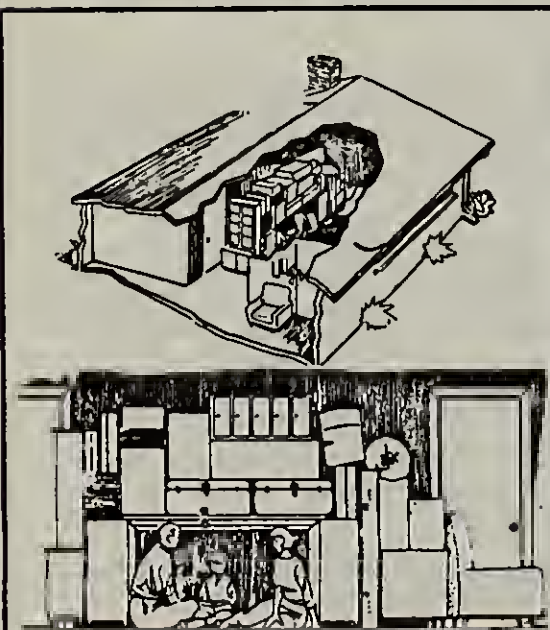
BASEMENT: Place boxes or drawers on top of a sturdy table or workbench and

fill with heavy material, such as dirt or sand or bricks. If the sides of the basement, away from the shelter area, have more than two feet of outside wall exposure, materials should also be placed around the open sides of the table. Be very careful not to overload the table to the point of collapse.

FIRST FLOOR OF HOUSE WITHOUT A BASEMENT: Place boxes or drawers on top AND around the sides of a sturdy table or workbench and fill them with heavy materials. Often a makeshift table can be made by using doors supported by cabinets or other pieces of furniture.

Further information about improving your home shelter can be found in the Civil Defense Booklet "IN TIME OF EMERGENCY" or from your local Civil Defense Chairman at your local town or city Civil Defense office.

GROUND FLOOR SHELTER



Place boxes or drawers on top and around the sides of a sturdy table or workbench and fill them with heavy materials. Often a makeshift table can be made by using doors supported by cabinets or other pieces of furniture.

WHAT TO DO NOW

(1) Study the sketches and decide which is applicable to your situation and select a shelter location.

(2) Take note of available shielding materials such as bricks, concrete blocks, sand or loose earth which could be moved quickly.

Other things could also be used as shielding material, such as:

- House doors that have been taken off their hinges (especially heavy outside doors).
- Drawers and chests (especially if the drawers are filled with sand or earth).
- Tables and bookcases.
- Large appliances (such as washers, dryers, TV and hi-fi sets).
- Trunks, boxes and cartons (if filled with earth, sand or other heavy material).
- Books, magazines, and stacks of firewood or lumber.
- Flagstones from outside walks and patios.

(3) If no shielding materials are presently available, obtain and store some in a convenient location.

(4) Take note of non-perishable foods normally kept in the home. If these are not sufficient to maintain your family for two weeks, increase the supply.

BASEMENT SHELTER



SELECT THE CORNER OF YOUR BASEMENT WHERE THE GROUND LEVEL OUTSIDE IS HIGHEST. THIS IS THE SAFEST PLACE IN THE BASEMENT.

Place boxes or drawers on top of a sturdy table or workbench and fill with heavy material, such as dirt or sand. If the sides of the basement away from the shelter area have more than two feet of outside wall exposure, materials should also be placed around the open sides of the table. Be very careful not to overload the table to the point of collapse.

If you have no shelter available, follow these PLANS FOR EXPEDIENT FALLOUT SHELTERS



SAVE THESE PLANS—THEY MAY SAVE YOUR LIFE

● GENERAL INFORMATION

WITHOUT PROTECTION, UNTOLD NUMBERS OF AMERICANS WOULD DIE IN THE EVENT OF A NUCLEAR ATTACK. THE EXPEDIENT SHELTERS ILLUSTRATED IN THE FOLLOWING PAGES PROVIDE PROTECTION TO OCCUPANTS FROM THE DEADLY RADIATION OF RADIOACTIVE FALLOUT GENERATED BY A NUCLEAR DETONATION—THEIR USE CAN SAVE THE LIVES OF MILLIONS OF AMERICANS.

EVEN THOUGH THE ILLUSTRATED SHELTERS ARE VERY AUSTERE, THERE ARE A NUMBER OF THINGS THAT CAN BE DONE TO IMPROVE THEIR HABITABILITY AFTER THEY HAVE BEEN BUILT. WITH THE USE OF A LITTLE INGENUITY AND EFFORT, THE SHELTERS CAN BE MADE MORE COMFORTABLE. SOME OF THE THINGS THAT CAN BE DONE ARE:



THE ATTACK WARNING SIGNAL



A WAVERING TONE OR SHORT BLASTS FOR 3 TO 5 MINUTES
ACTUAL ATTACK AGAINST THIS COUNTRY HAS BEEN DETECTED
TAKE IMMEDIATE PROTECTIVE ACTION.

EXPEDIENT FALLOUT SHELTER TILT-UP DOORS AND EARTH

STEP 1

LAY OUT THE TRENCH AND EARTH NOTCH WIDTHS, AS DIMENSIONED ON THE SECTION BELOW, ADJACENT TO A MASONRY WALL. DETERMINE THE LENGTH OF TRENCH AND NOTCH BY ALLOWING 3 FEET OF LENGTH PER PERSON TO BE SHELTERED.

STEP 2

EXCAVATE TRENCH AND EARTH NOTCH. PLACE EXCAVATED EARTH OUTSIDE SHELTER LIMITS FOR LATER USE.

STEP 3

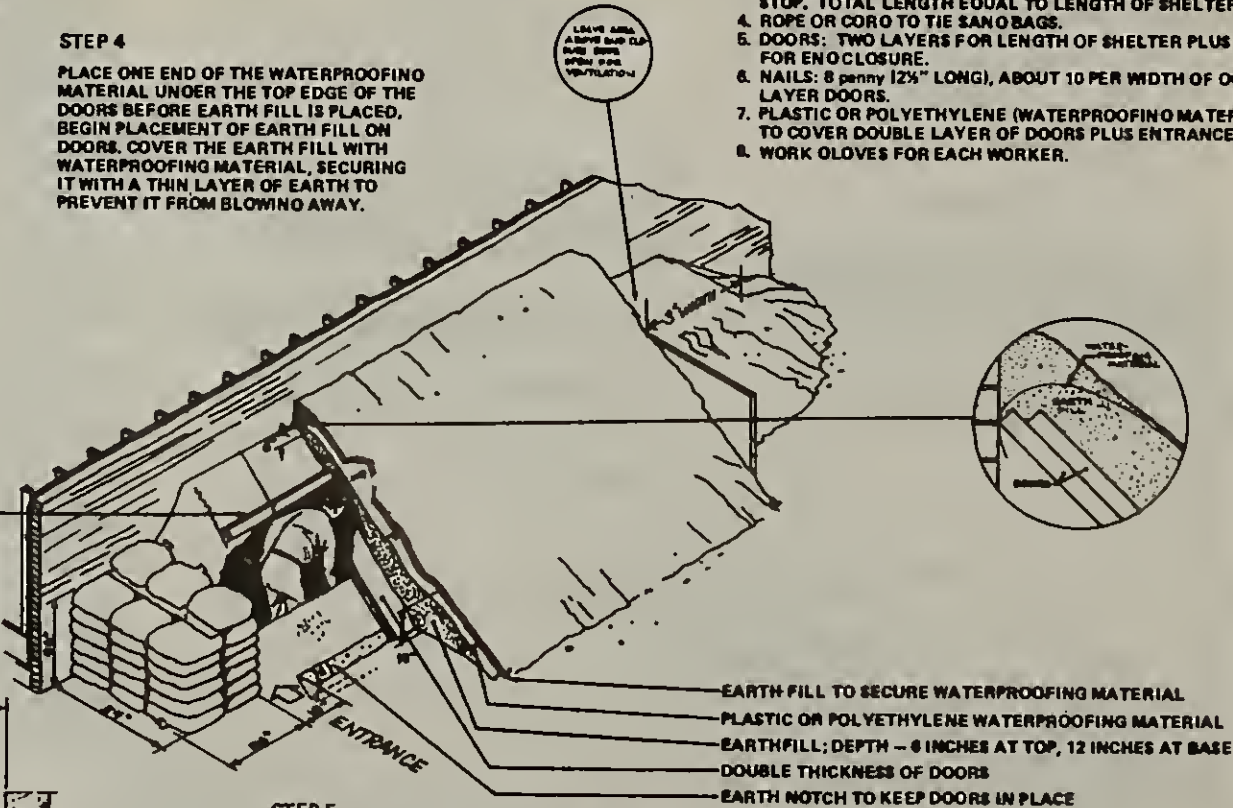
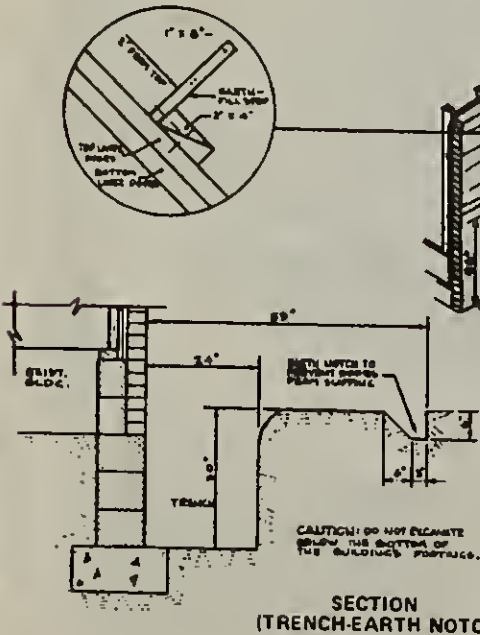
REMOVE DOOR KNOBS FROM ALL DOORS. PLACE DOUBLE LAYER OF DOORS IN NOTCH AND AGAINST WALL AS SHOWN IN SKETCH. EARTH-FILL STOP CAN BE NAILED TO TOP LAYER DOORS BEFORE OR AFTER PLACEMENT OVER TRENCH BY USING ABOUT 10 NAILS PER DOOR WIDTH. PLACE ONE DOOR ON EDGE LENGTHWISE AS THE END CLOSURE.

STEP 4

PLACE ONE END OF THE WATERPROOFING MATERIAL UNDER THE TOP EDGE OF THE DOORS BEFORE EARTH FILL IS PLACED. BEGIN PLACEMENT OF EARTH FILL ON DOORS. COVER THE EARTH FILL WITH WATERPROOFING MATERIAL, SECURING IT WITH A THIN LAYER OF EARTH TO PREVENT IT FROM BLOWING AWAY.

TOOLS AND MATERIALS

1. TOOLS: PICK, SHOVEL, HAMMER, SAW, SCREWDRIVER, KNIFE, YARDSTICK.
2. SANDBAGS OR PILLOWCASES — AT LEAST 39.
3. LUMBER: 1" X 8" PIECES AND 2" X 4" PIECES FOR EARTH-FILL STOP. TOTAL LENGTH EQUAL TO LENGTH OF SHELTER.
4. ROPE OR CORD TO TIE SANDBAGS.
5. DOORS: TWO LAYERS FOR LENGTH OF SHELTER PLUS ONE FOR ENCLOSURE.
6. NAILS: 8 penny (2½" LONG), ABOUT 10 PER WIDTH OF DOUBLE LAYER DOORS.
7. PLASTIC OR POLYETHYLENE (WATERPROOFING MATERIAL) TO COVER DOUBLE LAYER OF DOORS PLUS ENTRANCE.
8. WORK GLOVES FOR EACH WORKER.



STEP 5

CONSTRUCT ENTRANCE — FILL "SANDBAG PILLOWCASES" WITH EARTH TAKEN FROM THE TRENCH AND STACK TO DIMENSIONS SHOWN AFTER DOORS ARE IN PLACE. PLASTIC OR POLYETHYLENE (WATERPROOFING MATERIAL) ENTRANCE COVER SHOULD BE IN PLACE BEFORE EARTH FILL IS PUT ON THE DOORS.

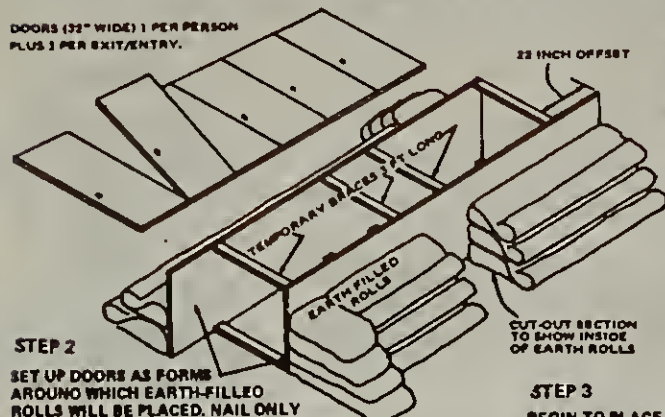
GENERAL INFORMATION

READ AND STUDY ALL INSTRUCTIONS BEFORE STARTING TO BUILD. THE LOCATION SELECTED FOR THIS SHELTER SHOULD BE LEVEL OR GENTLY SLOPING DOWN AND AWAY FROM THE MASONRY WALL. A FOUR-PERSON SHELTER CAN BE CONSTRUCTED BY FOUR PEOPLE WORKING A TOTAL OF 12 HOURS EACH.

EXPEDIENT FALLOUT SHELTER

ABOVE-GROUND DOOR-COVERED SHELTER

DOORS (32" WIDE) 1 PER PERSON PLUS 1 PER EXIT/ENTRY.



STEP 2
SET UP DOORS AS FORMS AROUND WHICH EARTH-FILLED ROLLS WILL BE PLACED. NAIL ONLY TOP BRACES. NAILS MUST BE REMOVED LATER. BRACE ALL CORNERS, CENTER, TOP AND BOTTOM OF EACH DOOR.

STEP 6
REMOVE DOOR FORMS FROM ENDWALLS. POSITION ROOF DOORS IN THEIR FINAL POSITION. PLACE ENTRY FRAME FOR DOOR OVER ENTRY/EXIT. PLACE WATERPROOFING MATERIAL ON DOORS.

STEP 7
DIG 14" DEEP, 36" WIDE TRENCH INSIDE SHELTER. EARTH CAN BE PLACED DIRECTLY ONTO ROOF DOORS. TRENCH CAN BE MADE UP TO 3 FEET DEEP IF CONDITIONS PERMIT.



1. PLACE 2 FT OF SHEET ON GROUND AND TEMPORARILY DRAPE REMAINDER OF SHEET ON DOOR.
2. PLACE EARTH ON SHEET - SHAPE AS SHOWN.
3. FOLD SHEET OVER SHAPED EARTH.
4. PLACE EARTH ONTO SHEET AT NARROW TRENCH.
5. FOLD SHEET TO FORM EARTH HOOK. HOOK WILL ANCHOR SHEET.
6. REPEAT TO FORM NEXT EARTH-FILLED ROLL.

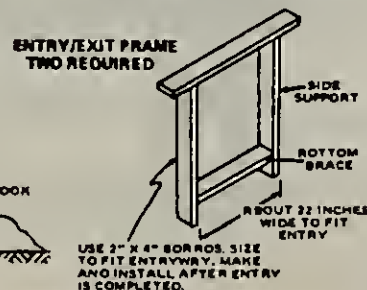
STEP 3
BEGIN TO PLACE EARTH-FILLED ROLLS AGAINST DOOR FORMS. TO FORM EARTH ROLLS. SEE EARTH-FILLED ROLL DETAIL BOTTOM OF PAGE.

FOLD WATERPROOFING MATERIAL UNDER HIGHER EDGE OF DOOR TO KEEP IT FROM SLIPPING.

STEP 4
MOUND EARTH AGAINST THE EARTH-FILLED ROLLS AS SHOWN. CONTINUE PLACING EARTH AND SHEETS TO FORM EARTH-FILLED ROLLS. CONTINUE PLACING EARTH AND SHEETS TO FORM EARTH-FILLED ROLLS.

NOTE: IF TRENCHING IS IMPRACTICAL HEIGHTEN WALLS BY USING ADDITIONAL EARTH ROLLS.

ENTRY/EXIT FRAME TWO REQUIRED



USE 2" X 4" BOROS. SIZE TO FIT ENTRYWAY. MAKE AND INSTALL AFTER ENTRY IS COMPLETED.

STEP 1

SELECT A SHELTER LOCATION WHERE THERE IS LITTLE OR NO CHANCE OF RAINWATER PONDING ON THE GROUND SURFACE. STAKE OUT SHELTER, REMOVE DOOR KNOBS. ALLOW 1 DOOR FOR EACH PERSON PLUS 1 DOOR FOR EACH ENTRY/EXIT AT BOTH ENDS. LIMIT IS 8 PERSONS PER SHELTER.

STEP 5

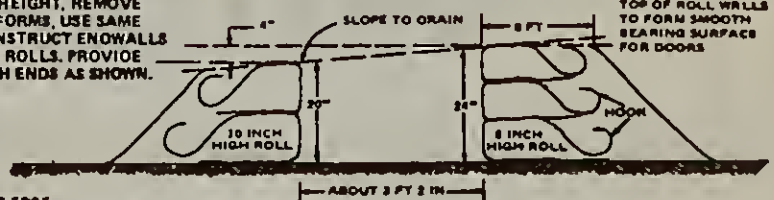
KEEP HEIGHT OF EARTH ABOUT EQUAL ON BOTH SIDEWALLS AS ROLLS ARE FORMED. AFTER SIDEWALLS HAVE REACHED PLANNED HEIGHT, REMOVE BRACES AND DOOR FORMS. USE SAME DOOR FORMS TO CONSTRUCT ENDWALLS WITH EARTH-FILLED ROLLS. PROVIDE EXIT/ENTRY AT BOTH ENDS AS SHOWN.

TOOLS AND MATERIALS

1. Doors as indicated.
2. Pick or Mattock and Shovel.
3. Two Buckets or Large Cans to Carry Earth.
4. Tape Measure, Yardstick or Ruler.
5. Saw, Axe or Hatchet.
6. Hammer and at least 20 Nails - 2 1/2" long.
7. At least 4 Double Bed Sheets for Each Person to be Sheltered.
8. Pillowcases and Rainproofing Materials such as Plastic or Polyethylene.
9. Work Gloves for Each Worker.
10. Lumber for use as Temporary Braces and for Entry/Exit Frames.



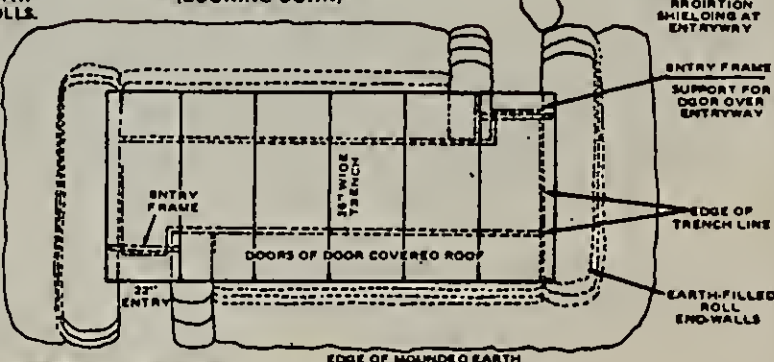
SHAPE EARTH ON TOP OF ROLL WALLS TO FORM SMOOTH BEARING SURFACE FOR DOORS



STEP 8

PLACE 15 INCHES OF EARTH ON TOP OF SHELTER. IN HOT WEATHER CONSTRUCT A SHELTER VENTILATION AIR PUMP. SEE AIR PUMP DETAILS ON LAST PAGE.

PLAN VIEW OF SHELTER (LOOKING DOWN)



GENERAL INFORMATION

THE ABOVE-GROUND DOOR-COVERED SHELTER IS DESIGNED FOR AREAS WHERE BELOW-GROUND SHELTERS ARE IMPRACTICAL BECAUSE THE GROUNDWATER TABLE OR BEDROCK IS CLOSE TO THE GROUND SURFACE. THIS SHELTER CAN BE BUILT BY FOUR PERSONS WORKING A TOTAL OF 12 HOURS EACH.

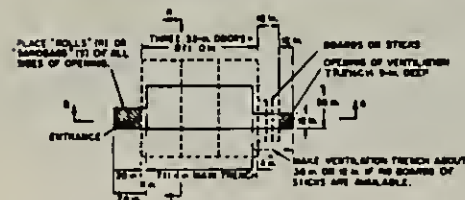
READ AND STUDY ALL INSTRUCTIONS BEFORE STARTING TO BUILD. IF DOOR WIDTHS MEASURE LESS THAN 32 INCHES, USE A COMBINATION OF DOORS TO PROVIDE A MINIMUM OF 32 INCHES OF DOOR-WIDTH PER PERSON.

EXPEDIENT FALLOUT SHELTER

DOOR - COVERED TRENCH SHELTER

STEP 1

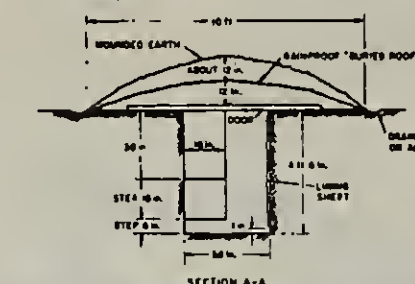
SELECT A REASONABLY LEVEL SITE. LAY OUT THE SHELTER AS ILLUSTRATED BY LAYING DOORS SIDE BY SIDE TO DETERMINE THE SHELTER LENGTH. DOOR KNOBS SHOULD BE REMOVED.



LAYOUT FOR 3-PERSON CAPACITY

STEP 2 EXCAVATE THE SHELTER TRENCH, ENTRYWAY AND VENTILATION TRENCH AS SHOWN. PILE THE EXCAVATED EARTH AT LEAST 3 FEET BEYOND THE TRENCH LIMITS SO THAT IT WILL NOT INTERFERE WITH THE LATER PLACEMENT OF DOORS OVER THE TRENCH.

STEP 3 IF THERE ARE ADEQUATE SHEETS OR FABRIC AVAILABLE, LINE THE TRENCH WALLS WITH THEM. THEN PLACE DOORS OVER THE TRENCH.



STEP 4 IN ORDER TO HOLD IN PLACE AN ADEQUATE AMOUNT OF EARTH ON TOP OF THE DOORS, CONSTRUCT EARTH "ROLLS" AROUND THE ENTRYWAY AS SHOWN. THE "ROLLS" WILL KEEP THE EARTH FILL IN PLACE. SEE HOW TO MAKE AN EARTH ROLL.

STEP 5 PLACE EARTH FILL AND THE WATERPROOFING MATERIAL OVER THE DOORS. PLACE SANDBAGS AS SHOWN ON THE ILLUSTRATIONS.

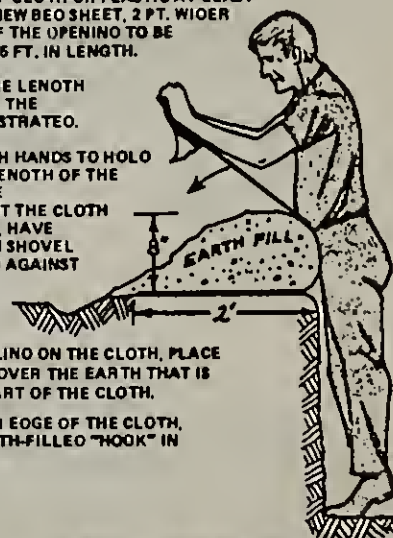
STEP 6 CONSTRUCT SHALLOW DRAINAGE DITCHES ON ALL SIDES AND PLACE CANOPIES OVER THE OPENINGS.

TOOLS AND MATERIALS

1. DOORS (INTERIOR SOLID OR HOLLOW-CORE) - 1 FULL SIZE (32" MINIMUM WIDTH) FOR EACH PERSON. IF DOORS MEASURE LESS THAN 32" IN WIDTH, USE A COMBINATION OF DOORS TO PROVIDE THE MINIMUM WIDTH PER PERSON.
2. PICK AND/OR MATTOCK.
3. LONG-HANDLED SHOVELS.
4. RAINPROOFING MATERIAL - (e.g., PLASTIC SHEETING, CANVAS, PLASTIC TABLE COVERS, ETC.) AT LEAST 25 SQUARE FEET PER PERSON PLUS 2 PIECES ABOUT 6 FT. BY 8 FT. FOR USE AS CANOPIES.
5. ONE BEDSHEET OR THE EQUIVALENT OF 50 SQ. FT. OF CLOTH OR PLASTIC PER PERSON TO LINE TRENCH AND MAKE EARTH-FILLED ROLLS.
6. TWO PILLOWCASES PER PERSON TO USE AS SANDBAGS.
7. STRING OR CORD TO TIE CANOPIES AND SANDBAGS.
8. KNIFE.
9. SEVERAL BOARDS ABOUT 3 FEET LONG.
10. MEASURING TAPE AND/OR RULER.
11. WORK GLOVES FOR EACH WORKER.

HOW TO MAKE AN EARTH ROLL

1. SELECT A PIECE OF CLOTH OR PLASTIC AT LEAST AS STRONG AS A NEW BED SHEET, 2 FT. WIDER THAN THE SIDE OF THE OPENING TO BE PROTECTED, AND 6 FT. IN LENGTH.
2. PLACE 2 FT. OF THE LENGTH OF THE CLOTH ON THE GROUND, AS ILLUSTRATED.
3. WHILE USING BOTH HANDS TO HOLD UP 3 FT. OF THE LENGTH OF THE CLOTH AND WHILE PRESSING AGAINST THE CLOTH WITH YOUR BODY, HAVE ANOTHER PERSON SHOVEL EARTH ONTO AND AGAINST THE CLOTH.
4. WHILE STILL PULLING ON THE CLOTH, PLACE THE UPPER PART OVER THE EARTH THAT IS ON THE LOWER PART OF THE CLOTH.
5. COVER THE UPPER EDGE OF THE CLOTH, FORMING AN EARTH-FILLED "HOOK" IN THIS EDGE.



GENERAL INFORMATION

THIS SHELTER IS DESIGNED FOR AREAS WHERE THERE IS A SHORTAGE OF SMALL TREES AND/OR BUILDING MATERIALS. THE DEPTH TO GROUNDWATER AND ROCK MUST ALSO BE BELOW THE BOTTOM OF THE TRENCH. IN ADDITION, THE EARTH MUST BE SUFFICIENTLY FIRM AND STABLE SO THAT THE TRENCH WALLS WILL NOT COLLAPSE. THE SHELTER (3-PERSON CAPACITY) CAN BE CONSTRUCTED BY 3 PEOPLE WORKING AN APPROXIMATE TOTAL OF 18 HOURS EACH. READ AND STUDY ALL INSTRUCTIONS BEFORE BEGINNING TO BUILD.

